

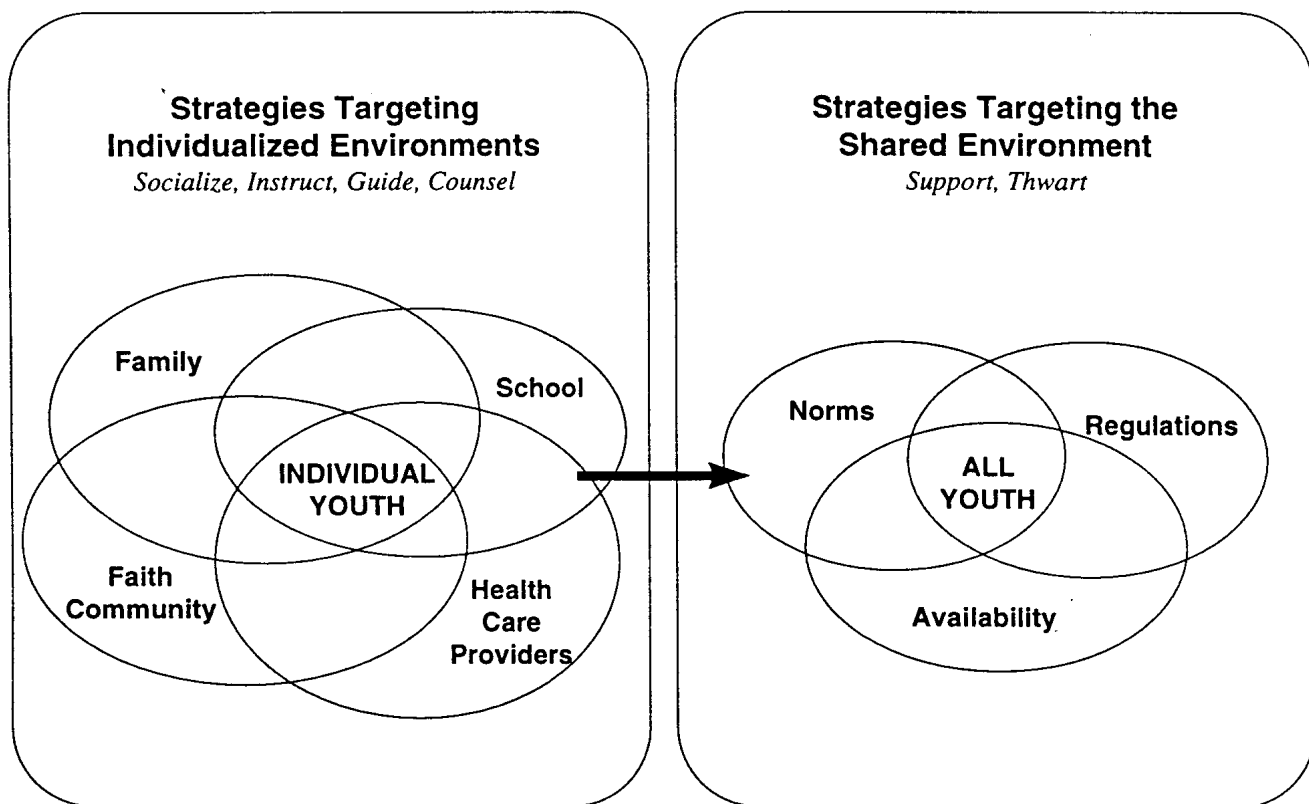
Integrating Environmental Change Theory Into Prevention Practice

The Concept:

Individualized and Shared Environments

One way to categorize prevention strategies is to consider those that attempt to alter the environments in which *individual* children grow, learn, and mature (*individualized environments*) and those that attempt to alter the environment in which all children encounter threats to their health—including illicit drugs, alcohol, and tobacco (*shared environment*). Much of what we have traditionally done in prevention is in this category.

Figure 1



As seen in figure 1, change agents in *individualized environments* may include families, schools, the faith community, and health care providers. Generally, strategies at this **level seek to socialize, instruct, guide, and counsel** children in ways that increase their resistance to health risks. Specific programs may teach parenting skills to parents or life skills to children, educate parents and children about health risks, communicate rules and expectations, or provide specialized services to youth at high risk. All of these individualized strategies seek to prepare and assist individual children in coping with a world that presents myriad temptations and potential threats to their health and well-being.

But, what about that world? Figure 1 also represents the world in which children face and cope with health threats in the *shared environment*. The shared environment can be a neighborhood, town, city, State, or the Nation as a whole. Properly designed and managed, the shared environment can *support* healthy behavior and *thwart* risky behavior for all children, regardless of how well prepared they may be by their individualized environments.

Behavior-Shaping Factors in the Shared Environment

Three factors in the shared environment shape both positive (healthy) and negative (health-compromising) behavior: *Norms*, *availability*, and *regulations*.

Norms are basic orientations concerning the "rightness or wrongness," acceptability or unacceptability, and/or deviance of specific behaviors for a specific group of individuals. For example, it is *wrong* for *anyone* to use illicit drugs; it is *okay* for *adults* to drink in moderation. Norms are the basis for a variety of specific attitudes that support or undermine the particular prevention strategies we may wish to implement. For example, a community norm that impaired driving is unacceptable under any circumstances will make it more likely that community members will adopt the attitudes that roadblocks are a good idea and jail time for first offenders is appropriate.

Availability can be defined in terms of how much time, energy, and money must be expended to obtain a commodity (alcohol, marijuana, cigarettes). The more resources required, the lower the availability.

Regulations are formalized laws, rules, and policies that serve to control availability and codify norms and that specify sanctions for violations. Regulations may be instituted by governments, public agencies (e.g., police departments, school systems), or private organizations (e.g., HMO's hospitality establishments, convenience stores).

The probability of a health-compromising behavior is decreased to the extent that there exist regulations that discourage the behavior and norms that disapprove of the behavior, and when the commodities needed to engage in the behavior are not easily available. Thus, the probability that youth will use alcohol is reduced when community members strongly disapprove of teen drinking (norms), when convenience stores regularly check ID's (availability), and when police policies support vigorous enforcement of underage sale and use laws (regulations). Conversely, the probability of healthy behavior is increased to the extent that there exist regulations that support the behavior, norms that approve of it, and when commodities needed to engage in the behavior are widely available. Thus, youth are more likely to seek safe transportation when riding with an intoxicated friend is seen as really dumb (norms), when public transportation is readily accessible and convenient (availability), and when taxi companies or bus lines agree to offer free or reduced-fare

rides to youth in need of safe transportation (regulations). ’

Norms, availability, and regulations are overlapping and interrelated. Availability is often controlled through the use of regulations. For example, a city may pass an ordinance (regulation) that bans cigarette vending machines and thus reduces the availability of tobacco to minors. Similarly, norms are often expressed through regulations. For example, society’s belief that crack cocaine is more dangerous and destructive than powdered cocaine is expressed in differential mandatory sentences for violations involving these two substances. The norm in some communities that underage drinking is just "youthful highjinks" is expressed in a police policy of benign neglect toward minor-in-possession violations. In practice, almost all prevention strategies will have an impact on norms, availability, and regulations to a greater or lesser degree.

Maximal Impact:

Achieving the Goals of the Secretary’s Initiative

Strategies that address both individualized environments and the shared environment are important components of a comprehensive approach to prevention. However, the Secretary’s Initiative necessitates a focus on the shared environment for three reasons: efficiency, immediacy, and maximal enhancement of local efforts.

Efficiency. Strategies directed at the shared environment are efficient because they affect every member of a target population. Removing dealers from street corners and training convenience store clerks to check ID’s reduces the availability of illicit drugs and tobacco for all neighborhood youth, regardless of whether or not they are even aware that the strategies are being implemented. Even if the cost per dealer or clerk is high, the cost per child will still be low because there are many more children in a given area than there are dealers or clerks.

Immediacy. Many effective strategies aimed at individualized environments take years to bear fruit. Classroom programs for sixth graders may **not affect tobacco** use for several years. Education for parents of young children may not show an impact for even longer. By contrast, strategies aimed at the shared environment often produce rapid results. Enforcement of the minimum alcohol purchase age or increases in alcohol prices (manipulations of availability) can produce more or less immediate reductions in youth alcohol use. The Secretary has set ambitious goals that must be achieved in a short timeframe. Fast-acting strategies, such as those aimed at the shared environment, will be required to fulfill the Secretary’s mandate.

’ Some readers will recognize strategies aimed at the shared environment as what is called a "public health" approach to prevention. The same ideas underlie classic public health prevention strategies, such as sanitation to prevent water-borne diseases and draining swamps to prevent the spread of malaria.

Enhancement. Most communities already have a number of programs aimed at individualized environments. Improving and expanding these programs is an important priority for communities. However, many communities currently have little in the way of a coordinated approach to the shared environment to complement their individualized environment strategies. Thus, the Secretary's Initiative will emphasize strategies aimed at the shared environment as the primary means for enhancing communities' prevention efforts.

How Shared Environments Change: Norms, Regulations, and Availability Play Leapfrog

Norms, regulations, and availability are interdependent and mutually supportive; they constitute stable systems that are tightly interwoven. This means that a change in any one of these factors will cause changes in the other two (figure 2a). As norms (or availability or regulations) change, they tend to pull the other factors along with them. However, it appears that no one factor can change too much or too quickly. Moderating pressure from the other two factors will tend to attenuate too rapid or too drastic a change in norms, regulations, or availability (figure 2b)

Figure 2a

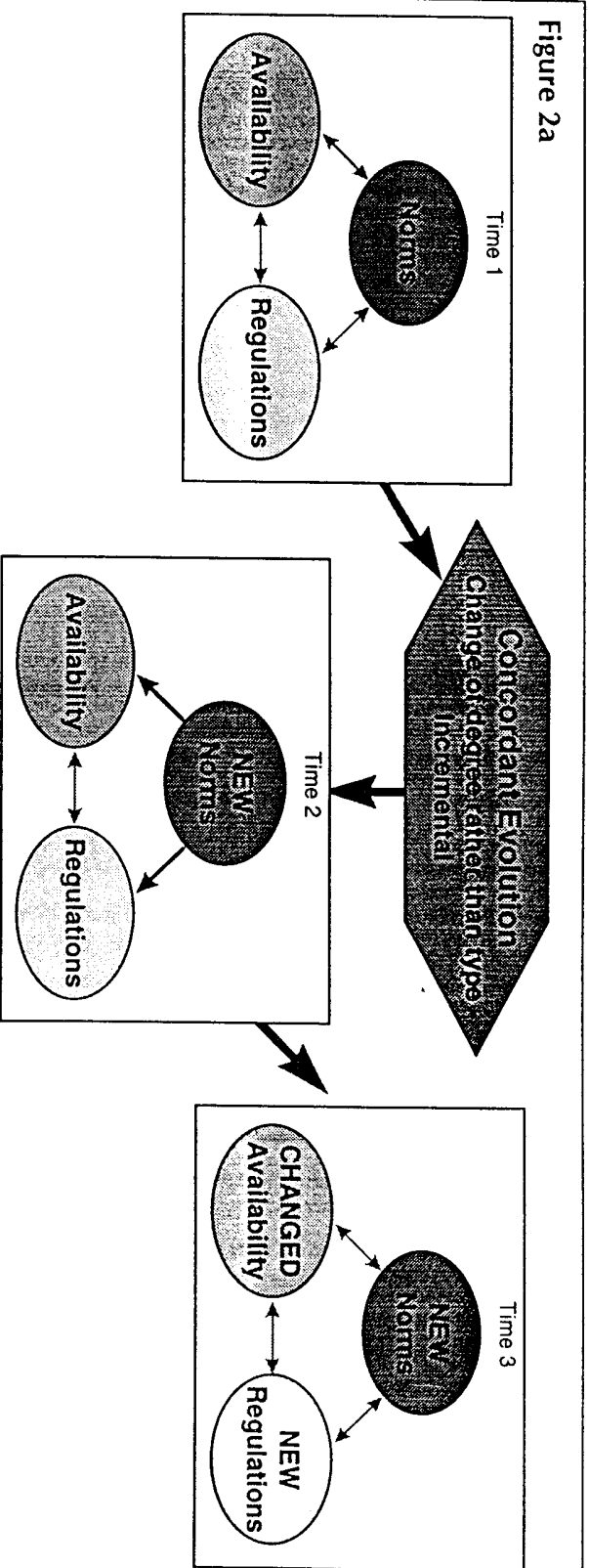


Figure 2b

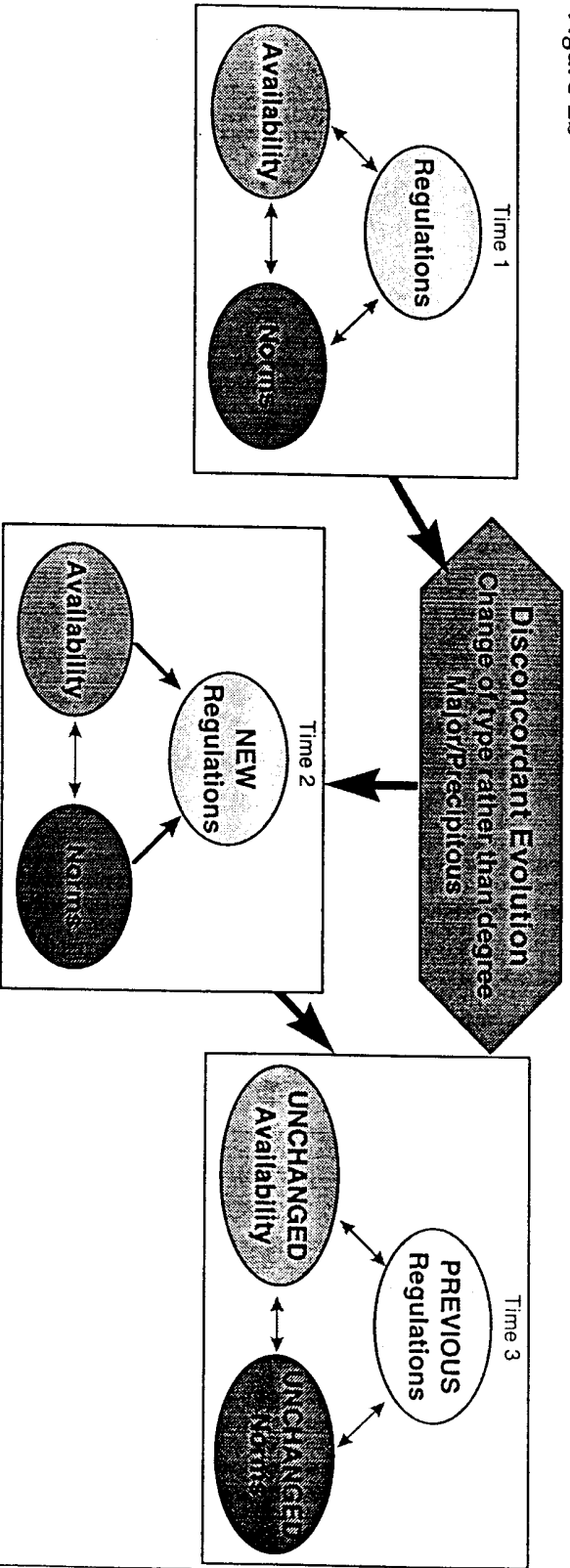


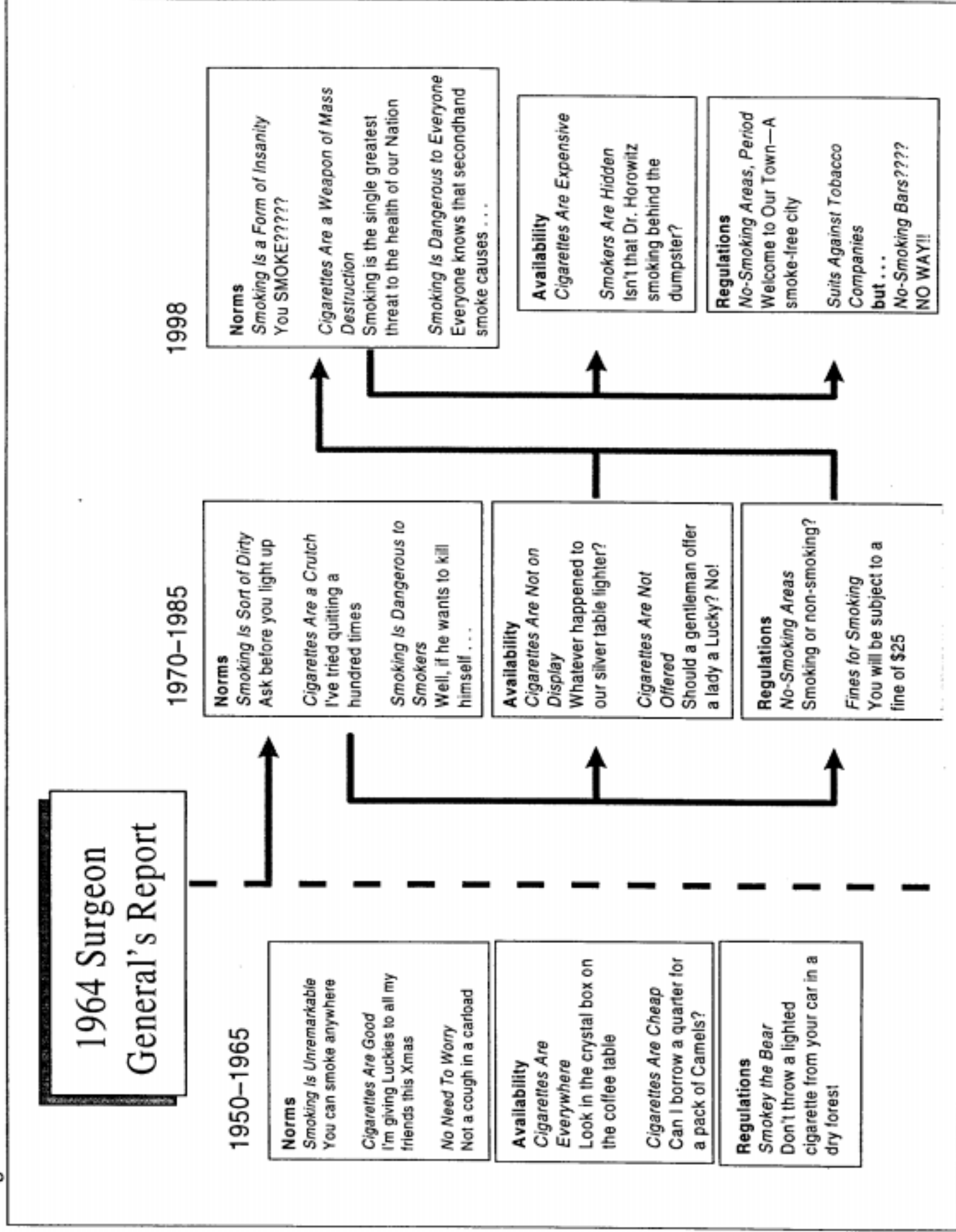
Figure 3 provides a mildly tongue-in-cheek example of how norms, regulations, and availability change, drawn from our national experience with cigarettes. As can be seen in figure 3, the 1950's were a period when norms, regulations, and availability were all consistent with a national infatuation with smoking. However, the 1964 Surgeon General's report, as well as other factors, began to change norms and beliefs concerning the health risks and social desirability of cigarettes. These changes, in turn, affected availability and regulations during the seventies and eighties which, in turn contributed to the decidedly anti-smoking norms of the 1990's. Finally, these decidedly anti-smoking norms contributed to the even more stringent regulations and restrictions on availability we observe today. Note however, that, even in today's anti-smoking climate, it is possible to go too far. When California banned smoking in bars, the public reacted so strongly that the law was repealed. This change in regulation was simply too discordant with prevailing norms to be supported.

Developing Prevention Strategies for the Shared Environment

The above discussions suggest that the strongest prevention approaches will derive from considering norms, regulations, and availability as a package. A strategy aimed at any one of these components should be viewed as an entry point into a systems consideration of all three.

In some cases, all three components must be addressed for a strategy to work. For example, nuisance abatement statutes have been successfully used to clean up properties where drug sales occur (a reduction in *availability*). However, the ability to employ this strategy may depend on adjustments in community *norms* about the amount of government intrusion into people's lives that is appropriate to address drug-related problems. Also, because civil remedies such as nuisance abatement statutes carry the potential for abuse by law enforcement, the statutes themselves may require re-examination before they are applied to reducing drug sales (*regulations*).

Figure 3



In other cases, all three components may not need to be addressed but should still be analyzed. For instance, in most American communities, anti-smoking norms would support further restrictions on the availability of cigarettes to youth, and minimum purchase age laws for tobacco are already in place. However, before launching a campaign to enforce these laws more aggressively, citizens may wish to consider (1) whether anti-smoking norms are strong enough to countervail concerns about hurting businesses owned by friends and neighbors, (2) whether enforcement agencies have the resources and training to assist, and (3) whether other community factions (e.g., the hospitality industry) may resist and how they can be brought on board, and so on.

An understanding of the operation of and interrelationships among norms, regulations, and availability provides a powerful tool for planning and developing prevention strategies for the shared environment. Table 1 provides two examples of how such a planning tool might be applied. By constructing analyses such as those presented in table 1, communities can get a better idea of what is required to successfully implement any given strategy for the shared environment.

Table 1

Strategy	Primary Focus	Associated Norms	Associated Regulations	Associated Availability Issues	Needed Resources
Concerned Parent Groups/Safe Homes Coalitions	Reinforce <i>norm</i> that parents can and should monitor children's partying	Underage youth should not have alcohol at parties Adults should not serve alcohol to underage youth in their homes	Police policy to investigate youth gatherings where underage alcohol use is suspected Social host liability	Pressure from parents on community alcohol outlets to check ID's	Highly motivated volunteers to organize and sustain effort
Citizen Surveillance	Reduce <i>availability</i> of illicit drugs by making neighborhood riskier for dealers	Community members are responsible for community well-being Illicit drugs are destructive to individual and community	Police policy to respond expeditiously to calls from community members	Dealers must keep moving around—possibly to less convenient locations. It is more difficult or expensive to sell.	Highly motivated parent volunteers to organize and sustain effort Communications and surveillance equipment

Specific Community-Level Strategies: Science, Logic, and Symbolism

A key component of the Secretary's Initiative is the application of prevention science at the community level: that is, the implementation of shared environment strategies that research has shown to be effective.

Strong scientific evidence supports a number of initiatives that communities can implement to reduce youth use of alcohol, tobacco, and illicit drugs. Strategies that reduce availability of these commodities are particularly well supported by research. We will refer to these strategies as the *strong science-based* approaches. There are other strategies for which positive scientific evidence exists but which have not been as extensively or rigorously studied as the strong science-based approaches. We will refer to these as *the limited science-based* approaches.

It is the Secretary's hope that communities will rely heavily on the strong science-based and limited science-based approaches. However, two other types of shared environment approaches are also important for communities to consider. First are strategies that, although un-researched, are supported by a compelling logic. Thus, for example, logic suggests that the sale and consumption of beer in a roped-off and monitored area at a county fair will reduce the number of underage fair-goers who obtain alcohol. Of course, research would be required to determine with certainty that this strategy works and to explore possible untoward consequences (if any). But, until such research is done, communities may wish to consider such strategies based on their underlying logic. We will refer to such strategies as *logic-based* approaches.

Finally, there are strategies that logic or science suggest will probably have little if any effect. However, these strategies can serve a symbolic purpose by demonstrating community solidarity and resolve to address youth alcohol, tobacco, and illicit drug use. Such *symbolic* approaches would include marches, poster contests, distribution of T-shirts and bumper stickers, and telethons. It is important to note that, in some communities, a symbolic approach is all that can be agreed upon initially. However, such first steps can be crucial. For example, the tavern-owners association may resist server training but agree to display youth-designed posters concerning underage sales in their establishments. In turn, this first step may lead to dialog concerning more substantive approaches.

Table 2 presents a variety of shared environment strategies for the prevention of youth alcohol, tobacco, and drug problems. The strategies are grouped into those that are science-based and those that are logic-based. Again, the Secretary intends that communities attempt to implement the strong science-based and limited science-based approaches. However, she recognizes that a comprehensive, community prevention effort can also include strategies that are logic-based and symbolic.

Table 2

Science-Based	Logic-Based
Alcohol	
<ul style="list-style-type: none"> • Enforcing minimum purchase age laws • Controlling outlet densities • Raising prices • Server Training • School Alcohol Policies 	<ul style="list-style-type: none"> • Keg registration • Safe Homes coalitions • Access control at community events • Parent and community groups • Police enforcement policies (e.g. warn and release)
Illicit Drugs	
<ul style="list-style-type: none"> • Citizen Surveillance • Nuisance abatement • Needle exchange • Crackdowns on dealers • School drug policies • 	<ul style="list-style-type: none"> • Aggressive treatment of addicts • Safe Homes coalitions • Parent and community groups • •
Tobacco	
<ul style="list-style-type: none"> • Enforcing minimum purchase age laws • Raising prices • Training merchants • Establishing school tobacco policies 	<ul style="list-style-type: none"> • Cessation programs • Safe Homes coalitions • Police enforcement policies (e.g. warn and release)